

**Supplemental Table 3.** Characteristics of Studies included in Systematic Review (n=40).

PC: Palliative care, PCU: Palliative Care Unit, PCI: pre-existing cognitive impairment. DSM: Diagnostic and Statistical Manual of Mental Disorders, DRS: Delirium Rating Scale, CAM: Confusion Assessment Method, CRS: Confusion Rating Scale, MDAS: Memorial Delirium Assessment Scale, DOSS: Delirium Observation Screening Scale, BCS: Bedside Confusion Scale, Nu-DESC: Nursing Delirium Screening Scale, ICD: International Classification of Diseases. PointP: point prevalence, PeriodP: period prevalence, Inc: cumulative incidence, LOS: length of stay, d: days, NR: not reported

Reference	Country	Study Design	Sample Size	Care Setting & Care Team Assessing Delirium	Palliative Indicator Diagnosis	Diagnostic Tool (score)	Epidemiological Data Reported (assessment period)
Şenel, 2017 <sup>71</sup>	Turkey	Prospective Cohort	213	Inpatient PCU – Inpatient PC	≥ 90% cancer, excluded PCI	DSM IV-TR, DRS (score ≥11)	PointP = 32% on admission, PeriodP = 49.8% entire admission (8.6+/-6.9 days)
Rainsford, 2014 <sup>61</sup>	Australia	Cross Sectional	51	Inpatient Hospice - Inpatient PC	≥ 90% cancer, excluded PCI	CAM, DRS-R98 (score ≥13)	PointP = 39.2% on admission
Gagnon, 2000 <sup>43</sup>	Canada	Prospective Cohort	89	Inpatient Hospice - Inpatient PC	≥ 90% cancer, PCI included	DSM III-R, CAM, CRS (score ≥2)	Inc = 32.8% (median LOS 19d), Incidence rate 25.4/1000 person days, PointP = 13.3% on admission, PeriodP =62% (median LOS 12d)
Gagnon, 2012 <sup>55</sup>	Canada	Prospective Cohort	1516	Hospital Inpatients, Inpatient Hospice - Inpatient PC	≥ 90% cancer, PCI included	CAM, CRS (score ≥2)	Inc = 46.2% (mean LOS 19-22d), PointP = 20.2% on admission
de la Cruz, Noguera 2015 <sup>31</sup>	USA	Retrospective Cohort	78	Community Home Hospice – Home Hospice	≥ 90% cancer, PCI unknown	MDAS (score ≥7)	PeriodP = 44% last 7 days of life
Detroyer, 2014 <sup>69</sup>	Belgium	Prospective Cohort	48	Inpatient PCU - Inpatient PC	Mixed diagnoses, PCI included	CAM, DOSS (score ≥3)	PeriodP = 29.9% first 10d of admission
Hui, 2012 <sup>32</sup>	USA	Prospective Cohort	151	Inpatient PCU in Cancer Center - Inpatient PC	≥ 90% cancer, PCI included	DSM IV-TR	PointP = 60.3%
Rao, 2011 <sup>33</sup>	USA	Prospective Cohort	22	Inpatient Hospice - Inpatient PC	Mixed diagnoses, PCI included	CAM	PeriodP = 64% (mean LOS 15.5-18.9 d)
Spiller, 2006 <sup>57</sup>	UK	Prospective Cohort & Cross Sectional	100 inpatient hospice, 109 in 8 inpatient settings	Inpatient Hospice, Inpatient PCU, General Inpatients - Inpatient PC, Consultant PC	≥ 90% cancer in inpatient hospice, other demographics not specified, PCI included	CAM	Inc = 7% (7d) Cumulative incidence 0.07 (7d), PointP = 29% on admission to PCU, PointP = 29% in mixed PCU and inpatient
Harrison, 2016 <sup>34</sup>	USA	Prospective Cohort	100	Inpatient Hospice - Inpatient PC	Demographic data not specified, PCI unknown	CAM	PeriodP = 36% (8 weeks)
Hosie, 2016 <sup>62</sup>	Australia	Cross Sectional	47	Inpatient PCU - Inpatient PC	Most patients >65yo, ≥ 90% cancer, PCI included	DSM V	PointP = 19%
Sarhill, 2001 <sup>35</sup>	USA	Cross Sectional	41	Inpatient PCU in Cancer Center - Inpatient PC	≥ 90% cancer, PCI included	BCS (score ≥2)	PointP = 32% on admission
Morita, 2005 <sup>58</sup>	Japan	Prospective Cohort	98 inpatients, 13 outpatients, 100 inpatient PCU	General Inpatients, Outpatients, Inpatient PCU - Inpatient PC, Consultant PC	≥ 90% cancer, PCI unknown	DSM IV	PeriodP = 33% (first 7d of consult), PeriodP = 14% (first 7d of PCU admission)

<u>Reference</u>	<u>Country</u>	<u>Study Design</u>	<u>Sample Size</u>	<u>Care Setting &amp; Care Team Assessing Delirium</u>	<u>Palliative Indicator Diagnosis</u>	<u>Diagnostic Tool (diagnostic score)</u>	<u>Epidemiological Data Reported (assessment period)</u>
Porteous, 2016 <sup>55</sup>	UK	Prospective Cohort	298	<b>Inpatient Hospice - Inpatient PC</b>	Age/diagnosis not specified, PCI included	CAM	Inc = 9% (LOS 1-82d), PointP = 11% on admission, PeriodP = 19.1% (median LOS 9d)
Fainsinger, 2000 <sup>45</sup>	Canada	Prospective Cohort	50 inpatient hospice, 50 inpatient PCU, 50 general inpatients	<b>Inpatient PCU, General Inpatient, Inpatient Hospice - Inpatient PC, Consultant PC</b>	≥ 90% cancer, PCI unknown	DSM IV	PeriodP = 88% (prior to death in PCU), 78% (prior to death in inpatient), 77% prior to death in hospice
de la Cruz, Fan, 2015 <sup>36</sup>	USA	Cross Sectional	771	<b>Cancer Center Inpatient – PC Consults</b>	≥ 90% cancer, PCI unknown	DSM IV-TR, MDAS (score ≥7)	PointP = 33% at first assessment
de La Cruz, Ransing, 2015 <sup>37</sup>	USA	Retrospective Cohort	556	<b>Inpatient PCU in Cancer Center - Inpatient PC</b>	≥ 90% cancer, PCI unknown	DSM IV-TR, MDAS (score ≥7)	Inc = 29% (median LOS 5-6d), PointP = 41% on admission, PeriodP = 58% (median LOS 5-6d)
Plaschke, 2016 <sup>67</sup>	Germany	Prospective Cohort	100	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, PCI unknown	Nu-DESC (score not reported)	PeriodP = 29% (mean LOS 12-13d)
Barnes, 2010 <sup>56</sup>	UK	Cross Sectional	59	<b>General Inpatient – Consultant PC</b>	Mixed diagnoses, age/gender not specified, PCI unknown	CAM	PointP = 8.5% at first assessment
Mercadante, Masedu, 2017 <sup>51</sup>	Italy	Prospective Cohort	263	<b>Inpatient Hospice and Community Home Hospice - Inpatient PC, Community PC</b>	≥ 90% cancer, PCI unknown	MDAS (score ≥7)	PointP = 41.8% on admission, PointP 68% at 7d
Mercadante, Adile, 2017 <sup>52</sup>	Italy	Prospective Cohort	292	<b>Inpatient PCU in Cancer Center - Inpatient PC</b>	≥ 90% cancer, PCI unknown	MDAS (score ≥7)	PointP = 33.5% on admission
Fang, 2008 <sup>70</sup>	Taiwan	Prospective Cohort	228	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, PCI unknown	DSM IV, DRS (score ≥10), Psychiatry interview	PeriodP = 46.9% (admission LOS NR)
Lawlor, 2000 <sup>46</sup>	Canada	Prospective Cohort	104	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, PCI included	DSM IV	Inc = 45% (admission LOS NR), PointP = 42.3% on admission, PeriodP 68.3% (admission LOS NR)
Minagawa, 1996 <sup>59</sup>	Japan	Cross Sectional	93	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, PCI included	DSM III-R, Psychiatry interview	PointP = 28% on admission
Kim, 2015 <sup>65</sup>	South Korea	Prospective Cohort	322	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, PCI unknown	DSM IV, DSM V, CAM, DRS-R98 (score not reported)	PointP = 30.4% 4-7d post admission
Mercadante, 2015 <sup>53</sup>	Italy	Prospective Cohort	166	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, excluded PCI	CAM	PointP = 66%

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Hui, 2015 <sup>72</sup>	USA & Brazil	Prospective Cohort	352	<b>Inpatient PCU in Cancer Center - Inpatient PC</b>	≥ 90% cancer, PCI unknown	MDAS	PointP = 43% on admission, PeriodP = 70% (median LOS 6d)
Tarumi, 2011 <sup>47</sup>	Canada	Prospective Cohort	958	<b>General Inpatient – Consultant PC</b>	Mixed diagnosis, PCI unknown	DSM IV	PointP = 23.6% on first assessment
Goy, 2011 <sup>38</sup>	USA	Prospective Cohort	103	<b>Community – Consultant PC</b>	≥ 90% males, mixed diagnoses, PCI included	CAM	PointP = 44.1% on first assessment, PointP = 42.5% on last assessment, PeriodP = 54.5% (median LOS 81d)
Fadul, 2008 <sup>39</sup>	USA	Cross Sectional	250	<b>General Inpatients and Outpatients – Consultant PC</b>	≥ 90% cancer, PCI unknown	DSM IV	PointP = 28%
Stillman, 2000 <sup>40</sup>	USA	Cross Sectional	31	<b>Inpatient PCU in Cancer Center - Inpatient PC</b>	Mixed diagnoses, PCI unknown	CAM	PointP = 58% on initial assessment
Fernandez, 1989 <sup>41</sup>	USA	Cross Sectional	206	<b>General Inpatients - Psychiatry</b>	≥ 90% males, all patients with AIDS, PCI included	DSM III-R	PointP = 57% on initial assessment
Massie, 1983 <sup>42</sup>	USA	Prospective Cohort	13	<b>Inpatient Oncology - Psychiatry</b>	≥ 90% cancer, PCI unknown	DSMIII, 58pt rating scale ( <i>not further specified</i> )	PeriodP = 85% (prior to death)
Freeman, 2014 <sup>48</sup>	Canada	Cross Sectional	6769	<b>Community – Palliative Home Care</b>	Mixed diagnoses, PCI unknown	Inter RAI-PC	PointP = 12.3% on initial assessment, PeriodP = 58% (prior to death)
Miyajima, 2014 <sup>60</sup>	Japan	Cross Sectional	255	<b>General Inpatients – Consultant PC</b>	≥ 90% cancer, PCI unknown	DSM IV	PointP = 12.1% on initial assessment
Godfrey, 2010 <sup>63</sup>	Ireland	Prospective Cohort	34	<b>Inpatient Hospice - Inpatient PC</b>	≥ 90% cancer, PCI unknown	DSM IV, DRS-R98, MDAS ( <i>score not reported</i> )	Inc = 16.5% (28d) PointP = 73.5% on admission
Caraceni, 2000 <sup>54</sup>	Italy	Prospective Cohort	393	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, PCI unknown	CAM	PointP = 27.7% at first assessment
Lam, 2003 <sup>68</sup>	Hong Kong	Prospective Cohort	82	<b>Inpatient PCU - Inpatient PC</b>	≥ 90% cancer, PCI included	DSM IV, MDAS ( <i>severity only, score not reported</i> )	PointP = 40.2% on admission
Durkin, 2003 <sup>64</sup>	Ireland	Cross Sectional	224	<b>Inpatient Hospice - Inpatient PC</b>	Diagnoses not specified for all patients, PCI included	ICD10	PointP = 19% on admission
Gaudreau, 2005 <sup>49</sup>	Canada	Prospective Cohort	261	<b>General Inpatient – Psycho-Oncology</b>	≥ 90% cancer, PCI included	Nu-DESC ( <i>score ≥2</i> )	Inc = 16.5% (LOS 28d)

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<a href="#">Hausner, 2018<sup>50</sup></a>	<a href="#">Canada</a>	<a href="#">Retrospective Cohort</a>	<a href="#">280</a>	<a href="#">Inpatient PCU in CancerCenter - Inpatient PC</a>	<a href="#">≥ 90% cancer, PCI unknown</a>	<a href="#">CAM</a>	<a href="#">PointP = 73% at death, PeriodP = 10.7% (median LOS 10d)</a>
<a href="#">Kang, 2018<sup>66</sup></a>	<a href="#">South Korea</a>	<a href="#">Prospective Cohort</a>	<a href="#">102</a>	<a href="#">Inpatient PCU - Inpatient PC</a>	<a href="#">&gt;90% cancer, PCI excluded</a>	<a href="#">CAM</a>	<a href="#">Inc = 28.3% (7d), PointP = 23.5% on admission</a>